CLAIMS

1. A process for the preparation of gamma-cyhalothrin comprising steps of a) chlorinating 1R *cis*-Z 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl cyclopropanecarboxylic acid to give 1R *cis*-Z 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl cyclopropanecarboxylic acid chloride and b) esterifying 1R *cis*-Z 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl cyclopropanecarboxylic acid chloride with the (S)-cyanohydrin of 3-phenoxy benzaldehyde (III).

2. A process according to claim 1 in which the HCl formed during the esterification is removed from the reaction mass using a combination of physical methods and a sub-stoichiometric amount of a base.

3. A process according to claim 2 in which the base is added once the esterification reaction has been taken to greater than 50% completion using only physical removal of the HCl.

4. A process according to claim 2 or claim 3 in which the base is an organic base selected from pyridine, alkylpyridines, quinoline, the trimethylether of triethanolamine or the mono-hydrochloride salt of DABCO, or an inorganic base selected from an alkali metal carbonate or bicarbonate or alkaline earth metal oxide, hydroxide or carbonate or a combination of an organic and an inorganic base

5. A process according to claim 4 in which the base is a pyridine or an alkylpyridine.

6. A process according to any one of claims 2 to 5 in which the esterification reaction is carried out in a solvent selected from toluene, o-xylene, mixed

xylenes or halobenzenes, for example fluorobenzene, hexane, cyclohexane, iso-hexane, heptane, octane or petroleum ethers.

7. A process according to claim 6 in which the solvent is hexane, cyclohexane, iso-hexane, heptane or octane.

8. A process according to any one of claims 2 to 5 in which the esterification reaction is carried out in a two-phase system in which one phase is an aqueous phase, optionally containing an organic base.